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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE TRADEMARK TRIAL AND APPEAL BOARD

Proceeding	85125792
Applicant	ConSeal International Incorporated
Applied for Mark	STOP BUGGING ME!
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**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE TRADEMARK TRIAL AND APPEAL BOARD**

Applicant: ConSeal International Incorporated

Mark: STOP BUGGING ME!

Serial No.: 85/125,792

Filing Date: September 9, 2010

Examiner: Jennifer M. Martin

Our File No.: 57997-0058

Trademark Trial and Appeal Board
U.S. Patent and Trademark Office
P.O. Box 1451 Alexandria, VA 22313-1451

APPEAL BRIEF UNDER 37 C.F.R. § 2.141

Dear Madam:

Applicant, ConSeal International Incorporated (“ConSeal” or “Applicant”), by and through undersigned counsel, hereby respectfully appeals the Examining Attorney’s refusal to register the mark STOP BUGGING ME! (the “Mark”) in standard characters. Applicant hereby electronically submits this Appeal Brief, along with the fee required pursuant to 37 C.F.R. § 2.141 and 15 U.S.C. § 1070. A Notice of Appeal was filed on October 7, 2011.

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DESCRIPTION OF RECORD

A. PROSECUTION HISTORY

Applicant's Mark, STOP BUGGING ME, for "insecticides; pesticides; pesticides for exterminating, namely, bed bugs and dust mites," was initially refused registration on December 18, 2010 in a non-final Office Action. Applicant filed a response to the Office Action on March 14, 2011. A Final Office Action and refusal of registration was issued by the Examining Attorney on April 7, 2011, based on a likelihood of confusion with respect to U.S. Registration No. 3,243,838, QUIT BUGGING ME for "insect repellents," (the "Cited Mark"), and more specifically, based on alleged similarity of the marks, similarity of the goods, and similarity of trade channels of the goods. Applicant filed a Request for Reconsideration and Notice of Appeal on October 7, 2011. The Request for Reconsideration was denied by the Examining Attorney on November 2, 2011.

B. EXAMINING ATTORNEY'S EVIDENCE

December 18, 2010, Office Action

The Examining Attorney's sole evidence for refusing to register Applicant's Mark with respect to the Cited Mark, based on alleged similarity of the marks, is a definition of the term "quit" taken from the website dictionary.com. The Examining Attorney equates the term "quit" with the term "stop" and notes that the remaining portions of the marks are the same and, therefore, that the marks have the same commercial impression.

The Examining Attorney's sole evidence for refusing to register Applicant's Mark with respect to the Cited Mark, based on a comparison of the goods and a comparison of the trade channels of the goods, are printouts from the USPTO's X-Search database, which show third-party registrations of marks purportedly used in connection with the same or similar goods

and/or services as those of Applicant's Mark and the Cited Mark. The Examining Attorney cites these third-party registrations in order to suggest that insect repellants and insecticides and pesticides, are of a kind that may emanate from a single source.

April 7, 2011, Final Office Action

In the Final Office Action the Examining Attorney reiterates the previous argument and presents no new persuasive evidence for refusing to register Applicant's Mark with respect to the Cited Mark, based on the similarity of the marks.

The only additional evidence for refusing to register Applicant's Mark with respect to the Cited Mark, based on a comparison of the goods and a comparison of the trade channels of the goods, are attachments of websites and online catalogs from Home Depot, Lowes, and Target in an attempt to show that Applicant's and Registrant's goods are the type of goods that can be sold by the same distributor of goods.

C. APPLICANT'S EVIDENCE

March 14, 2011, Response to Office Action

In contrast to the Examining Attorney's conclusions, based on the dictionary.com definitions cited to show similarity of the marks, Applicant cited definitions from Merriam-Webster. Specifically, the term "quit," which means "to set free: relieve, release" and, therefore, has a temporary connotation, which is in accord with the Cited Mark's insect *repellent*, and the term "stop," which means "to get in the way of: be wounded or killed by" or "to cause to cease" and, therefore, is used in conjunction with a permanent connotation with Applicant's goods (i.e., *insecticides*; *pesticides*; *pesticides for exterminating, namely, bed bugs and dust mites*).

Applicant further provided the Examining Attorney a list of marks which were distinguishable and dually registered despite being used in conjunction with similar goods and/or services and despite containing similar or exact terms.

Additionally, Applicant explained that its goods are products for killing, not repelling, insects, and are not to be sprayed upon or applied to the human body. Applicant's goods are marketed and sold to businesses and consumers for pest control and extermination. In contrast, the Cited Mark is clearly for repellents that are to be used by spraying or otherwise applying to the human body to repel insects from landing upon an individual's skin, hair, or clothing and sold and marketed in retail outlets direct to consumers as insect repelling skin care products.

October 7, 2011, Response to Final Office Action & Request for Reconsideration

In response to the Examiner's argument that Applicant's Mark and the Cited Mark are similar, Applicant identified several additional cases where two marks appeared similar and obtained registration for virtually identical goods or services. Applicant also argued that the addition of punctuation in Applicant's Mark (i.e., an exclamation point) makes the marks sound distinct when spoken or read.

Finally, as further proof that Applicant's goods are not so similar to the goods of the Cited Mark as to bar registration of Applicant's Mark, Applicant cited a response to an Office Action filed by the owner of the Cited Mark in which they admit and agreed that insecticides and pesticides are different from and not closely related to insect repellents. See section B of the response to the Office Action dated May 24, 2006, filed by the owner of the Cited Mark during the prosecution of its own application, attached hereto as Exhibit A.

ARGUMENT

A. No Likelihood of Confusion exists between Applicant's Mark and the Cited Mark.

1. Comparison of the Marks

Applicant's Mark is not likely to be confused with the Cited Mark because the sight, sound, meaning and overall commercial impressions of the marks are different. In assessing likelihood of confusion, marks should be considered in their entireties as to appearance, sound and meaning. *Professional Art Distribution, Inc. v. Internationaler Zeichenverband Fur Kunstdruckpapier, E.V.*, 11 U.S.P.Q. 2d 1735 (Fed. Cir. 1989). A mark should not be dissected and considered piecemeal; rather, it must be considered as a whole. See *Franklin Mint Corporation v. Master Manufacturing Company*, 667 F.2d 1005, 1007 (CCPA 1981). Similarity is based on the total effect of the marks, rather than a comparison of any individual features. See *Astra Pharm. Prods. Inc. v. Beckman Instru. Inc.*, 220 U.S.P.Q. 609, 611 (D. Mass. 1983) *aff'd* 718 F.2d 1201 (1st Cir. 1983); see also *In re Sweet Victory Inc.*, 228 U.S.P.Q. 959, 961 (TTAB 1986) (finding marks GLACE CONTINENTAL and GLACE LITE were not likely to be confused even though both marks were used in connection with sherbet, because "the overall differences in the marks are sufficient so that while source confusion may be possible, it is not likely."). The effect of the entire mark must be considered, including terms other than the terms that are similar to the Cited Mark. See *New England Fish Co. v. The Hervin Co.*, 179 U.S.P.Q. 743 (TTAB 1973) (stating that "each case requires consideration of the effect of the entire mark including any term in addition to that which closely resembles the opposing mark," and finding no likelihood of confusion between BLUE MOUNTAIN KITTY O'S mark and KITTY mark).

Although Applicant's Mark and the Cited Mark share the terms "BUGGING" and "ME," the two marks are, overall, phonetically dissimilar and visually distinct. Applicant's Mark begins with the term "STOP," which sounds and looks very different from the term "QUIT" and also has a different meaning according to commonly accepted dictionary definitions. The Cited Mark is used on insect *repellent* and, as such, is used for temporary relief from insect pests. The term "quit" therefore, has a temporary connotation, which is in accord with the Merriam-Webster definition of "quit" that provides, in part, "to set free: relieve, release." Conversely, Applicant's Mark is used on *insecticides; pesticides; pesticides for exterminating, namely, bed bugs and dust mites* and, as such, is used in conjunction with a permanent connotation. Not surprisingly, Merriam-Webster defines "stop" as, among other things, "to get in the way of: be wounded or killed by" or "to cause to cease." As such, the average purchaser would be more likely to be able to distinguish the two marks by this simple distinction alone.

Not only do the marks begin with different terms, but Applicant's Mark contains punctuation (i.e., an exclamation point) while the Cited Mark does not. Applicant's Mark and the Cited Mark also do not sound the same when spoken or read (e.g., Applicant's Mark is spoken or read in a significantly different exclamatory tone as emphasized by the addition of an exclamation point making it sound distinct from the Cited Mark).

Further, marks that are merely similar in appearance have been dually registered in the past. Including, to name a few, DURAGOLD (bronze pigment) and EVERGOLD (metal powder) see *Claremont Polychemical Corp. v. Atlantic Powdered Metals, Inc.*, 470 F.2d 636, 176 U.S.P.Q. 207 (C.C.P.A. 1972); GREEN LEAF (plant spray) and BLACK LEAF (plant spray) see *Smith v. Tobacco By-Products & Chemical Corp.*, 243 F.2d 188, 113 U.S.P.Q. 339 (C.C.P.A. 1957); HEALTHY CHOICE (food products) and HEALTH SELECTIONS (food

products) see *ConAgra, Inc. v. George A. Hormel & Co.*, 990 F.2d 368, 26 U.S.P.Q.2d 1316 (8th Cir. 1993); and TORNADO (wire fencing) and TYPHOON (wire fencing) see *Tornado Industries, Inc. v. Typhoon Industries, Inc.*, 20 Misc. 2d 43, 187 N.Y.S.2d 83, 121 U.S.P.Q. 328 (1959).

Because the appearance, sound and meaning of Applicant's Mark are distinguishable from the Cited Mark, the overall commercial impression of Applicant's Mark is not confusingly similar to that of the Cited Mark and Applicant's Mark should be allowed to register.

2. Comparison of the Goods

No likelihood of confusion exists between Applicant's Mark and the Cited Mark because the marks are used with different goods that are not closely related. The goods with which Applicant's Mark is used include "insecticides; pesticides; pesticides for exterminating, namely, bed bugs and dust mites." The goods with which the Cited Mark is used, as indicated in that mark's registration (see Exhibit B attached hereto), are insect repellents. In an office action dated May 24, 2006, the examining attorney assigned to examine the application filed for the Cited Mark stated that the term "repellents" refers to a substance used to repel insects. The term "repel" means "to drive or force back" or "to keep off of or out." See referenced office action attached hereto as Exhibit C (note: some attachments to the office action omitted to reduce file size); see also the definitions from www.dictionary.com for the terms "repellent" and "insect repellent," attached hereto as Exhibits D and E, respectively.

Insect repellent is a skin care product applied to human skin to prevent insects, including biting insects, from landing or remaining on the skin where they may bite or otherwise irritate people. For example, one might wear insect repellent if he or she is at a backyard barbeque, camping in the woods, or partaking in another outdoor activity. Insects that come into contact

with repellent products do not land on or near the individual wearing the repellent; instead, they avoid and stay away from the individual but are not killed by the repellent. Insect repellents, like almost all substances approved for topical use on human skin, are typically mild substances that are not harmful to the skin or dangerous to be used on or around humans.

In stark contrast, the goods covered by Applicant's Mark are insecticides and pesticides, which are, as the examining attorney discusses in the above-referenced office action attached hereto as Exhibit C, chemicals used to kill pests, including insects. Likewise, numerous common dictionary definitions for the two terms also define insecticides and pesticides as products used to kill insects and other pests. See Exhibits D and E, respectively. Unlike Applicant's repellent product, pesticides normally are applied to plants (e.g., crops, flowers, ornamentals, grass, or trees grown for timber) or other objects, namely mattresses, in order to kill existing insects, e.g., bed bugs and dust mites.

Additionally, the term "pesticide" also refers to substances that kill pests other than insects. For example, a pesticide may be a chemical substance or biological agent (such as a virus or bacteria) used against pests including insects, plant pathogens, weeds, mollusks, birds, mammals, fish, nematodes (roundworms) and microbes that compete with humans for food, destroy property, spread disease or are a nuisance. Many insecticides and pesticides, mainly chemical pesticides, are poisonous to humans. In contrast to the goods with which Applicant's Mark is used, the insect repellents sold under the Cited Mark are used solely to deter insects to discourage them from landing on or otherwise coming in contact with human skin; the insect repellent goods of the Cited Mark are not used to kill insects, plant pathogens, weeds, mollusks, birds, mammals, fish, roundworms, or microbes.

Moreover, unlike insect repellents, insecticides and pesticides are typically applied to plants, crops, or surfaces in homes to kill pests – due to their toxicity, they are not applied to human skin and often are not even used near humans. See article from Wikipedia attached hereto as Exhibit F. While it is entirely common for humans to “shower” themselves in a spray of insect repellent, humans do not apply, but rather seek to avoid contact with, insecticides and pesticides to their skin. The owner of the Cited Mark has even admitted and agreed that insecticides and pesticides are different from and not closely related to insect repellents. See Exhibit A. The Cited Mark’s owner’s website (located at www.jason-natural.com) also describes its goods as **skin care**, hair care, body care, oral care and deodorants and states that harmful chemicals are not used in its products. See home page of Cited Mark’s owner’s website attached hereto as Exhibit G. By their very nature as pesticides intended to kill, Applicant’s goods are expected to include chemicals that are harmful and lethal to certain organisms. The Cited Mark’s owner also categorizes its insect repellants as skin care products. See product page and insect repellant page of Cited Mark’s owner’s website attached hereto as Composite Exhibit H. For safety, legal, and a multitude of other reasons, Applicant never advertises, promotes, or identifies its pesticide goods as skin care products.

In short, the insecticides and pesticides covered by Applicant’s Mark are dangerous chemicals that are applied to plants, crops or other surfaces to kill insects and other pest infestations. These dangerous chemicals are not applied to human skin and would not be used to prevent mosquito bites or other insect bites on humans. By contrast, the Cited Mark’s insect repellents are mild substances that are skin care products used on human skin to prevent skin irritations from insects – they are not used on plants or crops to kill insects, microbes, weeds,

roundworms, or any other pests including bed bugs and dust mites. Consequently, consumers would never be confused as to the source of these very different goods.

The sole fact that the goods covered by Applicant's Mark and the Cited Mark relate to insects is insufficient for a finding of likelihood of confusion. For example, in the area of foods, related products have been found not likely to be confused with each other - a mark for butter and margarine was found not likely to be confused with a very similar mark for shortening although they are both food products used in cooking, and dessert powders have been found distinguishable from sugar although they are both used to make desserts. See *Standard Brands Inc. v. Peters*, 191 U.S.P.Q. 168, 172 (TTAB 1975) (addition of the word "corn" is sufficient to render the mark "CORN-ROYAL" as a whole distinguishable from and registrable over "ROYAL" for butter and margarine products, which are specifically different from shortening for volume deep fat frying); see also *Imperial Sugar Company v. Imperial Products*, 139 U.S.P.Q. 344, 345 (TTAB 1963) (IMPERIAL mark used for both dessert powders and sugar; no likelihood of confusion because dessert powders and sugar are "such different food products"); see also *Electronic Design & Sales v. Electronic Systems*, 954 F.2d 713 (Fed. Cir. 1992). (EDS mark used for computer programming services and battery chargers and power supplies; no likelihood of confusion even though goods and services under both marks were sold to some of the same companies).

Although these cases involve goods that travel in channels of trade that are different from Applicant's goods, the "food" cases and the *Electronic Design & Sales* case cited above are instructive because they involve identical or nearly identical marks that cover arguably related goods. As in the "food" cases, Applicant's goods are not sufficiently related to the goods covered by the Cited Mark for confusion to be likely. Furthermore, the goods in the "food" cases are far

more closely related than the goods of Applicant's Mark and the Cited Mark in the present case. The mere fact that the Examiner used the search term "insect" to produce printouts of insect repellants and insecticides sold from the websites of large scale distributors such as Home Depot, Lowes, and Target is insufficient to show that the goods are likely to be confused. Such evidence should not be relied upon in refusing registration of Applicant's Mark as all three of these companies are large, national, "big-box store" mass retailers that sell goods in virtually all classes. Such national mass retailers will, of course, sell goods in their brick and mortar stores and in their online stores that are identical to those of Applicant's Mark and the Cited Mark, just as those same mass retailers also sell clothing, food, home goods, books and magazines, electronics, and goods from nearly every other class. In fact, insecticides and insect repellants are often sold in different locations within any of these large scale distributors' brick and mortar stores because of the difference in their intended use (i.e., skin care products versus toxic chemicals for killing pests). Because of the liability involved in the accidental personal injury that could occur through the use of an insecticide or pesticide on the human skin as an insect repellant, these large scale distributors ensure that these goods are physically separated in their stores just as rat poisons, insecticides, and other pesticides are not placed in food aisles or cosmetic/skin care aisles in grocery stores or drug stores.

Because the products at issue here are different, Applicant's insecticides and pesticides are not likely to be confused with the insect repellent covered by the Cited Mark and Applicant's Mark should be allowed to register.

CONCLUSION

Accordingly, there is no likelihood of confusion here and Applicant respectfully requests that the Board grant this Appeal and allow the Applicant's Mark, STOP BUGGING ME!, to register.

Respectfully submitted,

Date: February 8, 2012

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Application Serial No.: 85/125,792
Attorney Docket No.: 57997-0058

Mark: STOP BUGGING ME!
Appeal Brief dated February 8, 2012

EXHIBIT A

Response to Office Action

The table below presents the data as entered.

Input Field	Entered
SERIAL NUMBER	78749065
LAW OFFICE ASSIGNED	LAW OFFICE 110
MARK SECTION (no change)	
ARGUMENT(S)	
<p>I. Examiner's Refusal to Register Applicant's Mark</p> <p>A. Introduction.</p> <p>The Examining Attorney has refused to register Applicant's mark QUIT BUGGING ME, Serial No. 78/749,065, for "insect repellents," in Class 5 (the "Applicant's Mark") under the Trademark Act § 2(d), claiming that the Applicant's Mark is likely to be confused with the mark DON'T BUG ME, U.S. Reg. No. 2,398,226, registered in connection with "pesticides for domestic use," in Class 5 (the "Cited Mark"). The Examining Attorney asserts that there is a likelihood of confusion between the Cited Mark and the Applicant's Mark because marks are similar in overall commercial impression and the goods are identical or closely related. However, the Applicant respectfully disagrees with the Examining Attorney's assertions. The products at issue are different and are used for different purposes – the Applicant's product is used on human skin and/or in the air around humans to keep insects away, whereas the product covered by the Cited Mark is a pesticide, which would be used not on humans but on plants, flowers, or objects to kill pests. Accordingly, based on the within discussion, Applicant respectfully requests reconsideration of the Examiner's refusal to register.</p> <p>B. The Applicant's Mark is not likely to be confused with the Cited Mark because the marks are used in connection with different goods.</p> <p>There is no likelihood of confusion between the Applicant's Mark and the Cited Mark because the marks cover goods that are not closely related. The goods covered by the Applicant's Mark are insect repellents. As discussed by the Examining Attorney in the Office Action, the term "repellents" refers to a substance used to repel insects. The term "repel" means "to drive or force back" or "to keep off of or out." See attached excerpt from www.dictionary.com. Insect repellent is applied to human skin to prevent insects from landing or remaining on the skin and biting individuals. For example, one might wear insect repellent if he or she is at a backyard barbeque, camping in the woods, or partaking in another outdoor activity. Insects that come into contact with repellant do not land on or near the individual wearing the repellant – they stay away from the individual, but they are not killed by the repellant. Insect repellents, like all substances applied to human skin, are typically mild substances that are not harmful to the skin or dangerous to be used on or around humans. In contrast, the goods covered by the Cited Mark are pesticides, which are,</p>	

as the Examining Attorney discusses in the Office Action, a chemical used to kill pests, including insects. Unlike the Applicant's repellent product, pesticides normally are applied to plants, crops or other objects in order to kill existing insects. However, the term "pesticides" refers to substances that also kill pests other than insects. For example, the online encyclopedia www.wikipedia.org states that a "pesticide may be a chemical substance or biological agent (such as a virus or bacteria) used against pests including insects, plant pathogens, weeds, mollusks, birds, mammals, fish, nematodes (roundworms) and microbes that compete with humans for food, destroy property, spread disease or are a nuisance. Many pesticides, mainly chemical pesticides, are poisonous to humans." See attached excerpt from www.wikipedia.org. In contrast, the insect repellents sold by the Applicant are used solely to keep insects off of human skin, not to kill plant pathogens, weeds, mollusks, birds, mammals, fish, roundworms or microbes. Moreover, unlike insect repellent, pesticides are typically applied to plants, crops, or surfaces in homes to kill pests – they are not applied to human skin and they are not even used near humans. As discussed in the excerpt from www.wikipedia.org above, pesticides are notoriously dangerous to humans and are also dangerous to the environment. In fact, when homes are treated with pesticides, residents typically leave the home and do not return until the dangerous pesticide fumes have dissipated. Similarly, humans are usually advised to wash fruit and vegetables thoroughly before eating them, to prevent the ingestion of dangerous pesticides that might be on the surface of the food. In addition, there have been many instances in which pesticides have killed or harmed humans, such as the pesticides Agent Orange and DDT. In short, the pesticides covered by the Cited Mark are dangerous chemicals that are applied to plants, crops or other surfaces to kill pests. These dangerous chemicals are not applied to human skin and would not be used to prevent mosquito bites or other insect bites on humans. By contrast, the Applicant's insect repellents are mild substances used on human skin to prevent skin irritations from insects – they are not used on plants or crops to kill insects, microbes, weeds, roundworm, or other pests. Consequently, consumers would never be confused as to the source of these very different goods. The sole fact that the goods covered by the Applicant's Mark and the Cited Mark relate to insects is insufficient for a finding of likelihood of confusion. For example, in the area of foods, related products have been found not likely to be confused with each other - a mark for butter and margarine was found not likely to be confused with a very similar mark for shortening although they are both food products used in cooking, and dessert powders have been found distinguishable from sugar although they are both used to make desserts. See *Standard Brands Inc. v. Peters*, 191 U.S.P.Q. 168, 172 (TTAB 1975) (addition of the word "corn" is sufficient to render the mark "CORN-ROYAL" as a whole distinguishable from and registrable over "ROYAL" for butter and margarine products, which are specifically different from shortening for volume deep fat frying); see also *Imperial Sugar Company v. Imperial Products*, 139 U.S.P.Q. 344, 345 (TTAB 1963) (IMPERIAL mark used for both dessert powders and sugar; no likelihood of confusion because dessert powders and sugar are "such different food products"); *Electronic Design & Sales v. Electronic Systems*, 954 F.2d 713 (Fed. Cir. 1992). (EDS mark used for computer programming services and battery chargers and power supplies; no likelihood of confusion even though goods and services under both marks were sold to some of the same companies). Although these cases involve goods that travel in channels of trade that are different from the Applicant's goods, the "food" cases and the EDS case cited above are instructive because they involve identical or nearly identical marks that cover arguably related goods. As in the "food" cases, the Applicant's goods are not sufficiently related to the goods covered by the Cited Marks for confusion to be likely. Furthermore, the goods in the "food" cases are far more closely related than the goods and services in the present case. Because the products at issue here

are different, Applicant's insect repellent is not likely to be confused with the pesticides covered by the Cited Mark.

- C. The Applicant's Mark is not likely to be confused with the Cited Mark because the sight, sound, meaning and overall commercial impressions of the marks are different. The Applicant's Mark is not likely to be confused with the Cited Mark because the sight, sound, meaning and overall commercial impressions of the marks are different. When the differences in the appearances, sound, and meaning are taken together, the overall commercial impression of the Applicant's QUIT BUGGING ME mark is distinguishable from the mark DON'T BUG ME. In assessing likelihood of confusion, marks should be considered in their entireties as to appearance, sound and meaning. *Professional Art Distribution, Inc. v. Internationaler Zeichenverbank Fur Kunstdruckpapier, E.V.*, 11 U.S.P.Q. 2d 1735 (Fed. Cir. 1989). A mark should not be dissected and considered piecemeal; rather, it must be considered as a whole. See *Franklin Mint Corporation v. Master Manufacturing Company*, 667 F.2d 1005, 1007 (CCPA 1981). Considered in its entirety, the appearance, sound and meaning of the Applicant's QUIT BUGGING ME mark is greatly different from the appearance, sound and meaning of the mark DON'T BUG ME. The fact that the marks share the term "ME" is not dispositive, as similarity is based on the total effect of the marks, rather than a comparison of any individual features. See *Astra Pharm. Prods. Inc. v. Beckman Instru. Inc.*, 220 U.S.P.Q. 609, 611 (D. Mass. 1983) *aff'd* 718 F.2d 1201 (1st Cir. 1983); see also *In re Sweet Victory Inc.*, 228 U.S.P.Q. 959, 961 (TTAB 1986) (finding marks GLACE CONTINENTAL and GLACE LITE were not likely to be confused even though both marks were used in connection with sherbet, because "the overall differences in the marks are sufficient so that while source confusion may be possible, it is not likely.") The Examining Attorney should consider the effect of the entire mark, including terms other than the terms that are similar to the Cited Mark. See *New England Fish Co. v. The Hervin Co.*, 179 U.S.P.Q. 743 (TTAB 1973) (stating that "each case requires consideration of the effect of the entire mark including any term in addition to that which closely resembles the opposing mark," and finding no likelihood of confusion between BLUE MOUNTAIN KITTY O'S mark and KITTY mark). Similar to the "GLACE" marks in *In re Sweet Victory*, and the "KITTY" marks in *New England Fish Co.*, although the Applicant's mark and the marks cited by the Examining Attorney share the term "ME" they are, overall, phonetically dissimilar and visually distinct. The Applicant's mark uses the term QUIT and a different form of the term BUG, they begin with different terms, have different numbers of syllables, and do not sound the same when spoken or read (the Applicant's Mark takes more time to say and sounds much longer than the Cited Mark). Moreover, the meanings of the marks are different. The Applicant's QUIT BUGGING ME mark presupposes that the object of the "bugging" is already being annoyed and wants the aggravating party to leave, whereas the Cited Mark indicates that the object has not yet been "bugged" by the aggravating party. Because the appearance, sound and meaning of the Applicant's Mark are distinguishable from the Cited Mark, the overall commercial impression of the Applicant's Mark is not confusingly similar to that of the Cited Mark.
- D. Conclusion.

The marks at issue cover different types of specialized goods which themselves are not substitutes for, and which do not compete with, one another. Further, the Applicant's Mark is distinguishable in appearance, sound and meaning from the Cited Mark. Accordingly, there is no likelihood of confusion here, and the Applicant respectfully requests that the Examining Attorney reconsider his refusal to register the Applicant's Mark and allow the mark to proceed to registration.

EVIDENCE SECTION	
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	\\TICRS\EXPORT2\IMAGEOUT2 787\490\78749065\xml1\RO A0008.JPG
DESCRIPTION OF EVIDENCE FILE	Scanned copies of dictionary and encyclopedia references
SIGNATURE SECTION	
RESPONSE SIGNATURE	/Robert W Smith/
SIGNATORY'S NAME	Robert W. Smith
SIGNATORY'S POSITION	Attorney for Applicant
DATE SIGNED	11/20/2006
AUTHORIZED SIGNATORY	YES
FILING INFORMATION SECTION	
SUBMIT DATE	Mon Nov 20 19:16:52 EST 2006
TEAS STAMP	USPTO/ROA-63.118.223.132- 20061120191652159171-7874 9065-340216036956d4468059 94cc2e71b36be6-N/A-N/A-20 061120161728523080

Response to Office Action

To the Commissioner for Trademarks:

Application serial no. **78749065** has been amended as follows:

Argument(s)

In response to the substantive refusal(s), please note the following:

I. Examiner's Refusal to Register Applicant's Mark

A. Introduction.

The Examining Attorney has refused to register Applicant's mark QUIT BUGGING ME, Serial No. 78/749,065, for "insect repellents," in Class 5 (the "Applicant's Mark") under the Trademark Act § 2(d), claiming that the Applicant's Mark is likely to be confused with the mark DON'T BUG ME, U.S. Reg. No. 2,398,226, registered in connection with "pesticides for domestic use," in Class 5 (the "Cited Mark"). The Examining Attorney asserts that there is a likelihood of confusion between the Cited Mark and the Applicant's Mark because marks are similar in overall commercial impression and the goods are identical or closely related. However, the Applicant respectfully disagrees with the Examining Attorney's assertions. The products at issue are different and are used for different purposes – the Applicant's product is used on human skin and/or in the air around humans to keep insects away, whereas the product covered by the Cited Mark is a pesticide, which would be used not on humans but on plants, flowers, or objects to kill pests. Accordingly, based on the within discussion, Applicant respectfully requests reconsideration of the Examiner's refusal to register.

B. The Applicant's Mark is not likely to be confused with the Cited Mark because the marks are used in connection with different goods.

There is no likelihood of confusion between the Applicant's Mark and the Cited Mark because the marks cover goods that are not closely related. The goods covered by the Applicant's Mark are insect repellents. As discussed by the Examining Attorney in the Office Action, the term "repellents" refers to a substance used to repel insects. The term "repel" means "to drive or force back" or "to keep off of or out." See attached excerpt from www.dictionary.com. Insect repellent is applied to human skin to prevent insects from landing or remaining on the skin and biting individuals. For example, one might wear insect repellent if he or she is at a backyard barbeque, camping in the woods, or partaking in another outdoor activity. Insects that come into contact with repellent do not land on or near the individual wearing the repellent – they stay away from the individual, but they are not killed by the repellent. Insect repellents, like all substances applied to human skin, are typically mild substances that are not harmful to the skin or dangerous to be used on or around humans. In contrast, the goods covered by the Cited Mark are pesticides, which are, as the Examining Attorney discusses in the Office Action, a chemical used to kill pests, including insects. Unlike the Applicant's repellent product, pesticides normally are applied to plants, crops or other objects in order to kill existing insects. However, the term "pesticides" refers to substances that also kill pests other than insects. For example, the online encyclopedia www.wikipedia.org states that a "pesticide may be a chemical substance or biological agent (such as a virus or bacteria) used against pests including insects, plant pathogens, weeds, mollusks, birds, mammals, fish, nematodes (roundworms) and microbes that compete with humans for food, destroy property, spread disease or are a nuisance. Many pesticides, mainly chemical pesticides, are poisonous to humans." See attached excerpt from www.wikipedia.org. In contrast, the insect repellents sold by the Applicant are used solely to keep insects off of human skin, not to kill plant pathogens, weeds, mollusks, birds, mammals, fish, roundworms or microbes. Moreover, unlike insect repellent, pesticides are typically

applied to plants, crops, or surfaces in homes to kill pests – they are not applied to human skin and they are not even used near humans. As discussed in the excerpt from www.wikipedia.org above, pesticides are notoriously dangerous to humans and are also dangerous to the environment. In fact, when homes are treated with pesticides, residents typically leave the home and do not return until the dangerous pesticide fumes have dissipated. Similarly, humans are usually advised to wash fruit and vegetables thoroughly before eating them, to prevent the ingestion of dangerous pesticides that might be on the surface of the food. In addition, there have been many instances in which pesticides have killed or harmed humans, such as the pesticides Agent Orange and DDT. In short, the pesticides covered by the Cited Mark are dangerous chemicals that are applied to plants, crops or other surfaces to kill pests. These dangerous chemicals are not applied to human skin and would not be used to prevent mosquito bites or other insect bites on humans. By contrast, the Applicant's insect repellents are mild substances used on human skin to prevent skin irritations from insects – they are not used on plants or crops to kill insects, microbes, weeds, roundworm, or other pests. Consequently, consumers would never be confused as to the source of these very different goods. The sole fact that the goods covered by the Applicant's Mark and the Cited Mark relate to insects is insufficient for a finding of likelihood of confusion. For example, in the area of foods, related products have been found not likely to be confused with each other - a mark for butter and margarine was found not likely to be confused with a very similar mark for shortening although they are both food products used in cooking, and dessert powders have been found distinguishable from sugar although they are both used to make desserts. See *Standard Brands Inc. v. Peters*, 191 U.S.P.Q. 168, 172 (TTAB 1975) (addition of the word "corn" is sufficient to render the mark "CORN-ROYAL" as a whole distinguishable from and registrable over "ROYAL" for butter and margarine products, which are specifically different from shortening for volume deep fat frying); see also *Imperial Sugar Company v. Imperial Products*, 139 U.S.P.Q. 344, 345 (TTAB 1963) (IMPERIAL mark used for both dessert powders and sugar; no likelihood of confusion because dessert powders and sugar are "such different food products"); *Electronic Design & Sales v. Electronic Systems*, 954 F.2d 713 (Fed. Cir. 1992). (EDS mark used for computer programming services and battery chargers and power supplies; no likelihood of confusion even though goods and services under both marks were sold to some of the same companies). Although these cases involve goods that travel in channels of trade that are different from the Applicant's goods, the "food" cases and the EDS case cited above are instructive because they involve identical or nearly identical marks that cover arguably related goods. As in the "food" cases, the Applicant's goods are not sufficiently related to the goods covered by the Cited Marks for confusion to be likely. Furthermore, the goods in the "food" cases are far more closely related than the goods and services in the present case. Because the products at issue here are different, Applicant's insect repellent is not likely to be confused with the pesticides covered by the Cited Mark.

- C. The Applicant's Mark is not likely to be confused with the Cited Mark because the sight, sound, meaning and overall commercial impressions of the marks are different. The Applicant's Mark is not likely to be confused with the Cited Mark because the sight, sound, meaning and overall commercial impressions of the marks are different. When the differences in the appearances, sound, and meaning are taken together, the overall commercial impression of the Applicant's QUIT BUGGING ME mark is distinguishable from the mark DON'T BUG ME. In assessing likelihood of confusion, marks should be considered in their entireties as to appearance, sound and meaning. *Professional Art Distribution, Inc. v. Internationaler Zeichenverbank Fur Kunstdruckpapier, E.V.*, 11 U.S.P.Q. 2d 1735 (Fed. Cir. 1989). A mark should not be dissected and considered piecemeal; rather, it must be considered as a whole. See *Franklin Mint Corporation v. Master Manufacturing Company*,

667 F.2d 1005, 1007 (CCPA 1981). Considered in its entirety, the appearance, sound and meaning of the Applicant's QUIT BUGGING ME mark is greatly different from the appearance, sound and meaning of the mark DON'T BUG ME. The fact that the marks share the term "ME" is not dispositive, as similarity is based on the total effect of the marks, rather than a comparison of any individual features. See *Astra Pharm. Prods. Inc. v. Beckman Instru. Inc.*, 220 U.S.P.Q. 609, 611 (D. Mass. 1983) *aff'd* 718 F.2d 1201 (1st Cir. 1983); see also *In re Sweet Victory Inc.*, 228 U.S.P.Q. 959, 961 (TTAB 1986) (finding marks GLACE CONTINENTAL and GLACE LITE were not likely to be confused even though both marks were used in connection with sherbet, because "the overall differences in the marks are sufficient so that while source confusion may be possible, it is not likely.") The Examining Attorney should consider the effect of the entire mark, including terms other than the terms that are similar to the Cited Mark. See *New England Fish Co. v. The Hervin Co.*, 179 U.S.P.Q. 743 (TTAB 1973) (stating that "each case requires consideration of the effect of the entire mark including any term in addition to that which closely resembles the opposing mark," and finding no likelihood of confusion between BLUE MOUNTAIN KITTY O'S mark and KITTY mark). Similar to the "GLACE" marks in *In re Sweet Victory*, and the "KITTY" marks in *New England Fish Co.*, although the Applicant's mark and the marks cited by the Examining Attorney share the term "ME" they are, overall, phonetically dissimilar and visually distinct. The Applicant's mark uses the term QUIT and a different form of the term BUG, they begin with different terms, have different numbers of syllables, and do not sound the same when spoken or read (the Applicant's Mark takes more time to say and sounds much longer than the Cited Mark). Moreover, the meanings of the marks are different. The Applicant's QUIT BUGGING ME mark presupposes that the object of the "bugging" is already being annoyed and wants the aggravating party to leave, whereas the Cited Mark indicates that the object has not yet been "bugged" by the aggravating party. Because the appearance, sound and meaning of the Applicant's Mark are distinguishable from the Cited Mark, the overall commercial impression of the Applicant's Mark is not confusingly similar to that of the Cited Mark.

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Evidence

Evidence in the nature of Scanned copies of dictionary and encyclopedia references has been attached.

[Evidence-1](#)

[Evidence-2](#)

[Evidence-3](#)

[Evidence-4](#)

[Evidence-5](#)

[Evidence-6](#)

[Evidence-7](#)

Response Signature

Signature: /Robert W Smith/ Date: 11/20/2006

Signatory's Name: Robert W. Smith

Signatory's Position: Attorney for Applicant

Serial Number: 78749065

Internet Transmission Date: Mon Nov 20 19:16:52 EST 2006

TEAS Stamp: USPTO/ROA-63.118.223.132-200611201916521

59171-78749065-340216036956d446805994cc2

e71b36be6-N/A-N/A-20061120161728523080

Top Web Results for "repel"

3 results for: *repel*

View results from: [Dictionary](#) | [Thesaurus](#) | [Encyclopedia](#) | [the Web](#)

Dictionary.com Unabridged (v 1.0.1) - Cite This Source

re·pel [ri-**pel**] Pronunciation Key - [Show IPA Pronunciation](#) *verb*, -pelled, -pel·ling.

-verb (used with object)

1. to drive or force back (an assailant, invader, etc.).
2. to thrust back or away.
3. to resist effectively (an attack, onslaught, etc.).
4. to keep off or out; fail to mix with: *Water and oil repel each other.*
5. to resist the absorption or passage of (water or other liquid): *This coat repels rain.*
6. to refuse to have to do with; resist involvement in: *to repel temptation.*
7. to refuse to accept or admit; reject: *to repel a suggestion.*
8. to discourage the advances of (a person): *He repelled me with his harshness.*
9. to cause distaste or aversion in: *Their untidy appearance repelled us.*
10. to push back or away by a force, as one body acting upon another (opposed to [ATTRACT](#)): *The north pole of one magnet will repel the north pole of another.*

-verb (used without object)

11. to act with a force that drives or keeps away something.
12. to cause distaste or aversion.

[Origin: 1350-1400; ME *repellen* < L *repellere* to drive back, equiv. to *re-* [RE-](#) + *pellere* to drive, push; see [REPULSE](#)]

—Related forms

re·pel·lence, re·pel·len·cy, *noun*

re·pel·ler, *noun*

re·pel·ling·ly, *adverb*

re·pel·ling·ness, *noun*

—Synonyms 1. repulse, parry, ward off. 3. withstand, oppose, rebuff. 7. decline, rebuff.

—Antonyms 1. attract.

Pesticide

From Wikipedia, the free encyclopedia

The U.S Environmental Protection Agency (EPA) defines a **pesticide** as "any substance or mixture of substances intended for preventing, destroying, repelling, or mitigating any pest".^[1]

A pesticide may be a chemical substance or biological agent (such as a virus or bacteria) used against pests including insects, plant pathogens, weeds, mollusks, birds, mammals, fish, nematodes (roundworms) and microbes that compete with humans for food, destroy property, spread disease or are a nuisance. Many pesticides, mainly chemical pesticides, are poisonous to humans.

Contents

- 1 Types of Pesticides
- 2 History
- 3 Regulation
- 4 Effects of pesticide use
 - 4.1 On the environment
 - 4.2 On farmers
 - 4.3 On consumers
- 5 Pesticide residues in food
- 6 Dangers of pesticides
- 7 Managing pest resistance
- 8 Continuing development of pesticides
- 9 Pesticide use maps in the US
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- 11 References
- 12 Further reading
 - 12.1 Books
 - 12.2 Journal Articles
 - 12.3 News
- 13 External links
 - 13.1 Pesticide regulatory authorities



A cropduster spreading pesticide.

Types of Pesticides

- Bactericides for the control of bacteria
- Herbicides for the control of weed OoOos
- Fungicides for the control of fungi
- Insecticides for the control of insects - these can be Ovicides, Larvicides or Adulticides
- Miticides for the control of mites
- Nematicides for the control of worms
- Rodenticides for the control of rodents
- Virucides for the control of virruses

Pesticides can also be classed as synthetic pesticides or biological pesticides, although the distinction can sometimes blur.

A **systemic pesticide** is a pesticide applied to a plant which is absorbed into its sap and so distributed throughout the plant to make all parts of it poisonous to pests, without harming the plant, although systemic insecticides which poison pollen and nectar in the flowers may kill needed pollinators.

History

Since before 500 BC, humans have used pesticides to prevent damage to their crops. The first known pesticide was sulfur. By the 15th century, toxic chemicals such as arsenic, mercury and lead were being applied to crops to kill pests. In the 17th century, nicotine sulfate was extracted from tobacco leaves for use as an insecticide. The 19th century saw the introduction of two more natural pesticides, pyrethrum which is derived from chrysanthemums, and rotenone which is derived from the roots of tropical vegetables.

In 1939, Paul Müller discovered that DDT was a very effective insecticide. It quickly became the most widely-used pesticide in the world. However, in the 1960s, it was discovered that DDT was preventing many fish-eating birds from reproducing which was a huge threat to biodiversity. Rachel Carson wrote the best-selling book "Silent Spring" about biological magnification. DDT is now banned in at least 86 countries, but it is still used in some developing nations to prevent malaria and other tropical diseases by killing mosquitoes and other disease-carrying insects.

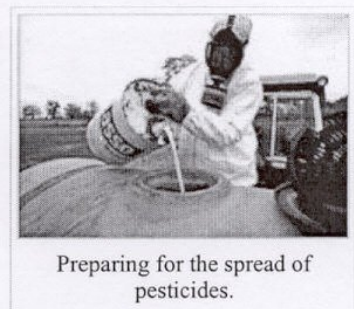
Pesticide use has increased 50-fold since 1950, and 2.5 million tons of industrial pesticides are now used each year.

Regulation

In most countries, in order to sell or use a pesticide, it must be approved by a government agency. For example, in the United States, the EPA does so. Complex and costly studies must be conducted to indicate whether the material is effective against the intended pest and safe to use. During the registration process, a label is created which contains directions for the proper use of the material. Based on acute toxicity, pesticides are assigned to a Toxicity Class. Pesticide misuse is illegal in most countries.

Some pesticides are considered too hazardous for sale to the general public and are designated restricted use pesticides. Only certified applicators, who have passed an exam, may purchase or supervise the application of restricted use pesticides. Records of sales and use are required to be maintained and may be audited by government agencies charged with the enforcement of pesticide regulations.

"Read and follow label directions" is a phrase often quoted by extension agents, garden columnists and others teaching about pesticides. This is not merely good advice; it is the law, at least in the U.S. Similar laws exist in limited parts of the rest of the world. The Federal Insecticide, Fungicide, and Rodenticide Act of 1972 (FIFRA) set up the current system of pesticide regulations. It was amended somewhat by the Food Quality Protection Act of 1996. Its purpose is to make pesticide manufacture, distribution and use as safe as possible. The most important points for users to understand are these: it is a violation to apply any pesticide in a manner not in accordance with the label for that pesticide, and it is a crime to do so intentionally.



Preparing for the spread of pesticides.

Effects of pesticide use

On the environment

Pesticides have been found to pollute virtually every lake, river and stream in the United States, according to the US Geological Survey (<http://pubs.usgs.gov/circ/2005/1291/>). Pesticide runoff has been found to be highly lethal to amphibians, according to a recent study by the University of Pittsburgh (<http://www.pitt.edu/~relyea/Roundup.html>). Pesticide impacts on aquatic systems are often studied using a hydrology transport model to study movement and fate of chemicals in rivers and streams.

The use of pesticides also decreases biodiversity in the soil. Not using them results in higher soil quality^[2] with the additional effect that more life in the soil allows for higher water retention. This helps increase yields for farms in drought years where there is less rain. For example, during drought years, organic farms have been found to have yields 20-40% higher than conventional farms.^[3]

On farmers

There have been many studies of farmers with the goal of determining the health effects of pesticide exposure.^[4] Research in Bangladesh suggests that many farmers' do not need to apply pesticide to their rice fields, but continue to do so only because the pesticide is paid for by the government. ^[1] (<http://radio.oneworld.net/mediamanage/view/5717?PrintableVersion=enabled>) Organophosphate pesticides have increased in use, because they are less damaging to the environment they are less persistent than organochlorine pesticides.^[5] These are associated with acute health problems such as abdominal pain, dizziness, headaches, nausea, vomiting, as well as skin and eye problems.^[6] Additionally, many studies have indicated that pesticide exposure is associated with long-term health problems such as respiratory problems, memory disorders, dermatologic conditions,^{[7][8]} cancer,^[9] depression, neurologic deficits,^{[10][11]} miscarriages, and birth defects.^[12] Summaries of peer-reviewed research have examined the link between pesticide exposure and neurologic outcomes and cancer, perhaps the two most significant things resulting in organophosphate-exposed workers.^[13] ^[14]

On consumers

A study published by the United States National Research Council in 1993 determined that for infants and children, the major source of exposure to pesticides is through diet.^[15] A recent study in 2006 measured the levels of organophosphorus pesticide exposure in 23 school children before and after replacing their diet with organic food (food grown without synthetic pesticides). In this study it was found that levels of organophosphorus pesticide exposure dropped dramatically and immediately when the children switched to an organic diet ^[16].

Pesticide residues in food

The Pesticide Data Program (<http://www.ams.usda.gov/science/pdp/>), a program started by the United States Department of Agriculture is the largest tester of pesticide residues on food sold in the United States. It began in 1990, and has since tested over 60 different types of food for over 400 different types of pesticides - with samples collected close to the point of consumption. Their most recent summary results are from the year 2004:

- Pesticide Data Program (Feb 2006). "*Annual Summary Calendar Year 2004*" (<http://www.ams.usda.gov/science/pdp/Summary2004.pdf>) (pdf). USDA. Retrieved on 2006-07-24.

For example, on page 30 is comprehensive data on pesticides on fruits. Some example data:

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Fresh Fruit and Vegetables	Number of Samples Analyzed	Samples with Residues Detected	Percent of Samples with Detections	Different Pesticides Detected	Different Residues Detected	Total Residue Detections
Apples	774	727	98	33	41	2,619
Lettuce	743	657	88	47	57	1,985
Pears	741	643	87	31	35	1,309
Orange Juice	186	93	50	3	3	94

They were also able to test for multiple pesticides within a single sample and found that:

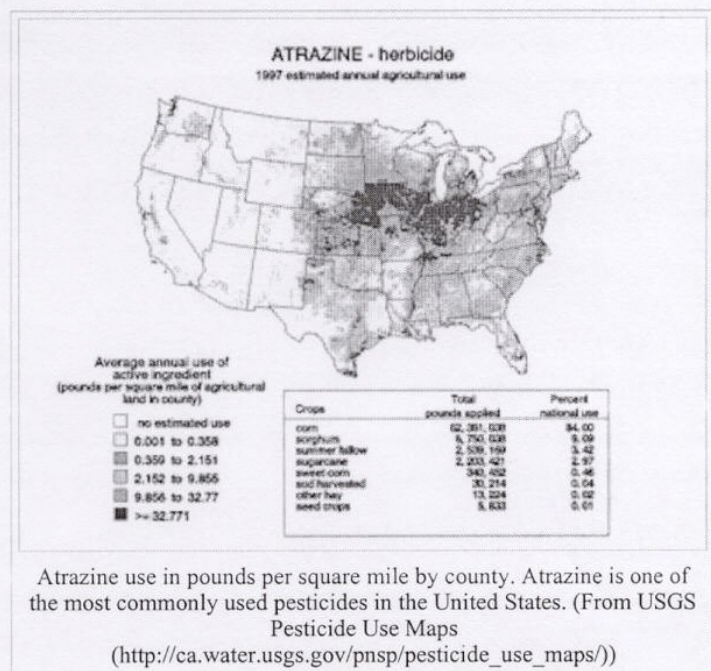
These data indicate that 29.5 percent of all samples tested contained no detectable pesticides [parent compound and metabolite(s) combined], 30 percent contained 1 pesticide, and slightly over 40 percent contained more than 1 pesticide. - page 34.

The Environmental Working Group used the results of nearly 43,000 tests for pesticides on produce collected by the USDA and the U.S. FDA between 2000 and 2004, to produce a ranking of 43 commonly eaten fruits & vegetables.[2] (<http://www.foodnews.org/fulldataset.php>)

Dangers of pesticides

Pesticides can present danger to consumers, bystanders, or workers during manufacture, transport, or during and after use. There is concern that pesticides used to control pests on food crops are dangerous to the consumer. These concerns are one reason for the organic food movement. Many food crops, including fruits and vegetables, contain pesticide residues after being washed or peeled (see Pesticide residues in food, above). Residues, permitted by US government safety standards, are limited to tolerance levels that are considered safe, based on average daily consumption of these foods by adults and children.

Tolerance levels are obtained using scientific risk assessments that pesticide manufacturers are required to produce by conducting toxicological studies, exposure modelling and residue studies before a particular pesticide can be registered, however, the effects are tested for single pesticides, and there is no information on possible synergistic effects of exposure to multiple pesticide traces in the air, food and water.



The remaining exposure routes, in particular pesticide drift, are potentially significant to the general public. Risk of exposure to pesticide applicators, or other workers in the field after pesticide application, may also be significant and is regulated as part of the pesticide registration process.

Children have been found to be especially susceptible to the harmful effects (<http://www.charityguide.org/volunteer/fifteen/pesticides.htm>) of pesticides. A number of research studies have found higher instances of brain cancer, leukemia and birth defects in children with early exposure to pesticides, according to the National Resources Defense Council (<http://www.nrdc.org/health/kids/farm/chap1.asp>).

Besides human health risks, pesticides also pose dangers to the environment. Non-target organisms can be severely impacted. In some cases, where a pest insect has some controls from a beneficial predator or parasite, an insecticide application can kill both pest and beneficial populations. The beneficial organism almost always takes longer to recover than the pest. Pesticides sprays in an effort to control adult mosquitoes, may temporarily depress mosquito populations, however they may result in a larger population in the long run by damaging the natural controlling factors.

Pesticides inflict extremely widespread damage to biota, and many countries have acted to discourage pesticide usage through their Biodiversity Action Plans. Misuse of pesticides can also cause pollinator decline, which can adversely affect food crops.

An early discovery relating to pesticide use, is that pests may eventually evolve to become resistant to chemicals. When sprayed with pesticides, many pests will initially be very susceptible. However, not all pests are killed, and some with slight variations in their genetic make-up are resistant and therefore survive. Through natural selection, the pests may eventually become very resistant to the pesticide. Farmers may resort to increased use of pesticides, exacerbating the problem.

“Persistent Organic Pollutants” (POPs) are one of the lesser-known environmental issues raised as result of using pesticides. POPs may continue to poison non-target organisms in the environment and increase risk to humans by disruption in the endocrine system, cancer, infertility and mutagenic effects, although very little is currently known about these ‘chronic effects’. Many of the chemicals used in pesticides are persistent soil contaminants, whose impact may endure for decades, and adversely affect soil conservation.

A new study conducted by the Harvard School of Public Health in Boston, has discovered a 70% increase in the risk of developing Parkinson’s disease for people exposed to even low levels of pesticides.^[17]

Managing pest resistance

Pest resistance to a pesticide is commonly managed through pesticide rotation or tankmixing with other pesticides.

Rotation involves alternating among pesticide classes with different modes of action to delay the onset of or mitigate existing pest resistance. Different pesticide classes may be active on different pest sites of action. The U.S. Environmental Agency (EPA or USEPA) designates different classes of fungicides, herbicides and insecticides. Pesticide manufacturers may, on product labeling, require that no more than a specified number of consecutive applications of a pesticide class be made before alternating to a different pesticide class. This manufacturer requirement is intended to extend the useful life of a product.

Tankmixing pesticides is the combination of two or more pesticides with different modes of action. This practice may improve individual pesticide application results in addition to the benefit of delaying the onset of or mitigating existing pest resistance.

Continuing development of pesticides

Pesticides are often highly efficient for producers who are in the business of large scale agriculture. Pesticide safety education and pesticide applicator regulation are designed to protect the public from pesticide misuse, but do not eliminate all misuse. Reducing the use of pesticides and replacing high risk pesticides is the ultimate solution to reducing risks placed on our society from pesticide use. For over 30 years, there has been a trend in the United States and in many other parts of the world to use pesticides in combination with alternative pest controls. This use of integrated pest management (IPM) is now commonplace in US agriculture. With pesticide regulations that now put a higher priority on reducing the risks of pesticides in our food supply and emphasize environmental protection, old pesticides are being phased out in favor of new reduced risk pesticides. Many of these reduced risk pesticides include biological and botanical derivatives and alternatives. As a result, older, more hazardous, pesticides are being phased out and replaced with pest controls that reduce these health and environmental risks. Chemical engineers continually develop new pesticides to produce enhancements over previous generations of products. In addition, applicators are being encouraged to consider alternative controls and adopt methods that reduce the use of chemical pesticides. This process is on-going and is not an immediate solution to the risks of pesticide use.

In 2006 the World Health Organization suggested the resumption of the limited use of DDT to fight malaria. They called for the use of DDT to coat the inside walls of houses in areas where mosquitoes are prevalent. Dr. Arata Kochi, WHO's malaria chief, said, "One of the best tools we have against malaria is indoor residual house spraying. Of the dozen insecticides WHO has approved as safe for house spraying, the most effective is DDT."

Pesticide use maps in the US

The US Geological Survey (<http://www.usgs.gov/>)'s National Water-Quality Assessment Program (<http://water.usgs.gov/nawqa/>) published a 1997 Pesticide Use Maps (http://ca.water.usgs.gov/pnsp/pesticide_use_maps_1997/) which shows estimates of pesticide type and intensity of pesticide use by business of mass food production.

See also

- agrichemicals
- DDT
- List of environmental health hazards
- Pesticide misuse
- Federal Insecticide, Fungicide, and Rodenticide Act
- Integrated Pest Management
- Nonpoint source pollution
- Pesticide poisoning
- Soil contamination
- Temik
- Alar
- Pesticide toxicity to bees
- Bt corn
- Protectant
- Non-pesticide management
- Water pollution

References